

In the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) An isolated nucleic acid molecule comprising a polynucleotide having a nucleotide sequence at least 95% identical to a sequence selected from the group consisting of:
 - (a) a polynucleotide fragment of SEQ ID NO:X or a polynucleotide fragment of the cDNA sequence included in ATCC Deposit No:Z, which is hybridizable to SEQ ID NO:X;
 - (b) a polynucleotide encoding a polypeptide fragment of SEQ ID NO:Y or a polypeptide fragment encoded by the cDNA sequence included in ATCC Deposit No:Z, which is hybridizable to SEQ ID NO:X;
 - (c) a polynucleotide encoding a polypeptide domain of SEQ ID NO:Y or a polypeptide domain encoded by the cDNA sequence included in ATCC Deposit No:Z, which is hybridizable to SEQ ID NO:X;
 - (d) a polynucleotide encoding a polypeptide epitope of SEQ ID NO:Y or a polypeptide epitope encoded by the cDNA sequence included in ATCC Deposit No:Z, which is hybridizable to SEQ ID NO:X;
 - (e) a polynucleotide encoding a polypeptide of SEQ ID NO:Y or the cDNA sequence included in ATCC Deposit No:Z, which is hybridizable to SEQ ID NO:X, having biological activity;
 - (f) a polynucleotide which is a variant of SEQ ID NO:X;
 - (g) a polynucleotide which is an allelic variant of SEQ ID NO:X;
 - (h) a polynucleotide which encodes a species homologue of the SEQ ID NO:Y;
 - (i) a polynucleotide capable of hybridizing under stringent conditions to any one of the polynucleotides specified in (a)-(h), wherein said polynucleotide does not hybridize under stringent conditions to a nucleic acid molecule having a nucleotide sequence of only A residues or of only T residues.

2-10. (Cancelled)

11. (Original) An isolated polypeptide comprising an amino acid sequence at least 95% identical to a sequence selected from the group consisting of:

- (a) a polypeptide fragment of SEQ ID NO:Y or the encoded sequence included in ATCC Deposit No:Z;
- (b) a polypeptide fragment of SEQ ID NO:Y or the encoded sequence included in ATCC Deposit No:Z, having biological activity;
- (c) a polypeptide domain of SEQ ID NO:Y or the encoded sequence included in ATCC Deposit No:Z;
- (d) a polypeptide epitope of SEQ ID NO:Y or the encoded sequence included in ATCC Deposit No:Z;
- (e) a secreted form of SEQ ID NO:Y or the encoded sequence included in ATCC Deposit No:Z;
- (f) a full length protein of SEQ ID NO:Y or the encoded sequence included in ATCC Deposit No:Z;
- (g) a variant of SEQ ID NO:Y;
- (h) an allelic variant of SEQ ID NO:Y; or
- (i) a species homologue of the SEQ ID NO:Y.

12. (Cancelled)

13. (Original) An isolated antibody that binds specifically to the isolated polypeptide of claim 11.

14-16. (Cancelled)

17. (Previously presented) A method for preventing, treating, or ameliorating a medical condition, comprising administering to a mammalian subject a therapeutically effective amount of the polypeptide of claim 11.

18. (Original) A method of diagnosing a pathological condition or a susceptibility to a pathological condition in a subject comprising:

(a) determining the presence or absence of a mutation in the polynucleotide of claim 1; and

(b) diagnosing a pathological condition or a susceptibility to a pathological condition based on the presence or absence of said mutation.

19. (Original) A method of diagnosing a pathological condition or a susceptibility to a pathological condition in a subject comprising:

(a) determining the presence or amount of expression of the polypeptide of claim 11 in a biological sample; and

(b) diagnosing a pathological condition or a susceptibility to a pathological condition based on the presence or amount of expression of the polypeptide.

20. (Original) A method for identifying a binding partner to the polypeptide of claim 11 comprising:

(a) contacting the polypeptide of claim 11 with a binding partner; and

(b) determining whether the binding partner effects an activity of the polypeptide.

21. (Cancelled)

22. (Original) A method of identifying an activity in a biological assay, wherein the method comprises:

(a) expressing SEQ ID NO:X in a cell;

(b) isolating the supernatant;

(c) detecting an activity in a biological assay; and

(d) identifying the protein in the supernatant having the activity.

23. (Cancelled)

24. (Previously presented) A method for preventing, treating, or ameliorating a medical condition, comprising administering to a mammalian subject a therapeutically effective amount of the polynucleotide of claim 1.

25. (New) An isolated antibody or fragment thereof that specifically binds to a protein selected from the group consisting of:

(a) a protein consisting of amino acid residues 1 to 182 of SEQ ID NO:114;

(b) a protein consisting of amino acid residues 2 to 182 of SEQ ID NO:114;

(c) a protein consisting of amino acid residues 32 to 182 of SEQ ID NO:114;

(d) a protein consisting of a portion of SEQ ID NO:114, wherein said portion comprises at least 30 contiguous amino acid residues of SEQ ID NO:114; and

(e) a protein consisting of a portion of SEQ ID NO:114, wherein said portion comprises at least 50 contiguous amino acid residues of SEQ ID NO:114.

26. (New) The antibody or fragment thereof of claim 25 that specifically binds protein (a).

27. (New) The antibody or fragment thereof of claim 25 that specifically binds protein (b).

28. (New) The antibody or fragment thereof of claim 25 that specifically binds protein (c).

29. (New) The antibody or fragment thereof of claim 25 that specifically binds protein (d).

30. (New) The antibody or fragment thereof of claim 25 that specifically binds protein (e).

31. (New) The antibody or fragment thereof of claim 26 that specifically binds protein (b).

32. (New) The antibody or fragment thereof of claim 28 wherein said protein bound by said antibody or fragment thereof is glycosylated.

33. (New) The antibody or fragment thereof of claim 28 which is a human antibody.

34. (New) The antibody or fragment thereof of claim 28 which is a polyclonal antibody.

35. (New) The antibody or fragment thereof of claim 28 which is selected from the group consisting of:

- (a) a chimeric antibody;
- (b) a humanized antibody;
- (c) a single chain antibody; and
- (d) a Fab fragment.

36. (New) The antibody or fragment thereof of claim 28 which is labeled.

37. (New) The antibody or fragment thereof of claim 36 wherein the label is selected from the group consisting of:

- (a) an enzyme;
- (b) a fluorescent label;
- (c) a luminescent label; and
- (d) a bioluminescent label.

38. (New) The antibody or fragment thereof of claim 28 wherein said antibody or fragment thereof specifically binds to said protein in a Western blot.

39. (New) The antibody or fragment thereof of claim 28 wherein said antibody or fragment thereof specifically binds to said protein in an ELISA.

40. (New) An isolated cell that produces the antibody or fragment thereof of claim 28.

41. (New) A hybridoma that produces the antibody or fragment thereof of claim 28.

42. (New) A method of detecting HUVDJ43 protein in a biological sample comprising:

- (a) contacting the biological sample with the antibody or fragment thereof of claim 28; and
- (b) detecting the HUVDJ43 protein in the biological sample.

43. (New) The method of claim 42 wherein the antibody or fragment thereof is a polyclonal antibody.

44. (New) An isolated antibody or fragment thereof obtained from an animal that has been immunized with a protein selected from the group consisting of:

- a) a protein consisting of amino acid residues 1 to 182 of SEQ ID NO:114;
- b) a protein consisting of amino acid residues 2 to 182 of SEQ ID NO:114;
- c) a protein consisting of amino acid residues 32 to 182 of SEQ ID NO:114;
- d) a protein consisting of a portion of SEQ ID NO:114, wherein said portion comprises at least 30 contiguous amino acid residues of SEQ ID NO:114; and
- e) a protein consisting of a portion of SEQ ID NO:114, wherein said portion comprises at least 50 contiguous amino acid residues of SEQ ID NO:114, wherein said antibody or fragment thereof specifically binds to said amino acid sequence.

45. (New) The antibody or fragment thereof of claim 44 obtained from an animal immunized with protein (a).

46. (New) The antibody or fragment thereof of claim 44 obtained from an animal immunized with protein (b).

47. (New) The antibody or fragment thereof of claim 44 obtained from an animal immunized with protein (c).

48. (New) The antibody or fragment thereof of claim 44 obtained from an animal immunized with protein (d).

49. (New) The antibody or fragment thereof of claim 44 obtained from an animal immunized with protein (e).

50. (New) The antibody or fragment thereof of claim 44 which is a monoclonal antibody.

51. (New) The antibody or fragment thereof of claim 44 which is selected from the group consisting of:

- (a) a chimeric antibody;
- (b) a polyclonal antibody;
- (c) a humanized antibody;
- (d) a single chain antibody; and
- (e) a Fab fragment.

52. (New) An isolated monoclonal antibody or fragment thereof that specifically binds to a protein selected from the group consisting of:

- (a) a protein consisting of amino acid residues 1 to 182 of SEQ ID NO:114;
- (b) a protein consisting of amino acid residues 2 to 182 of SEQ ID NO:114;
- (c) a protein consisting of amino acid residues 32 to 182 of SEQ ID NO:114;
- (d) a protein consisting of a portion of SEQ ID NO:2, wherein said portion comprises at least 30 contiguous amino acid residues of SEQ ID NO:2; and

(e) a protein consisting of a portion of SEQ ID NO:2, wherein said portion comprises at least 50 contiguous amino acid residues of SEQ ID NO:2.

53. (New) The antibody or fragment thereof of claim 52 that specifically binds protein (a).

54. (New) The antibody or fragment thereof of claim 52 that specifically binds protein (b).

55. (New) The antibody or fragment thereof of claim 52 that specifically binds protein (c).

56. (New) The antibody or fragment thereof of claim 52 that specifically binds protein (d).

57. (New) The antibody or fragment thereof of claim 52 that specifically binds protein (e).

58. (New) The antibody or fragment thereof of claim 53 that specifically binds protein (b).

59. (New) The antibody or fragment thereof of claim 55 wherein said protein bound by said antibody or fragment thereof is glycosylated.

60. (New) The antibody or fragment thereof of claim 55 which is a human antibody.

61. (New) The antibody or fragment thereof of claim 55 which is selected from the group consisting of:

- (a) a chimeric antibody;
- (b) a humanized antibody;

- (c) a single chain antibody; and
- (d) a Fab fragment.

62. (New) The antibody or fragment thereof of claim 55 which is labeled.

63. (New) The antibody or fragment thereof of claim 62 wherein the label is selected from the group consisting of:

- (a) an enzyme;
- (b) a fluorescent label;
- (c) a luminescent label; and
- (d) a bioluminescent label.

64. (New) The antibody or fragment thereof of claim 55 wherein said antibody or fragment thereof specifically binds to said protein in a Western blot.

65. (New) The antibody or fragment thereof of claim 55 wherein said antibody or fragment thereof specifically binds to said protein in an ELISA.

66. (New) An isolated cell that produces the antibody or fragment thereof of claim 55.

67. (New) A hybridoma that produces the antibody or fragment thereof of claim 55.

68. (New) A method of detecting HUVDJ43 protein in a biological sample comprising:

- (a) contacting the biological sample with the antibody or fragment thereof of claim 55; and
- (b) detecting the HUVDJ43 protein in the biological sample.

69. (New) An isolated antibody or fragment thereof that specifically binds to a protein selected from the group consisting of:

- (a) a protein consisting of the full-length polypeptide encoded by the cDNA contained in ATCC Deposit Number 203081;
- (b) a protein consisting of the mature form of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 203081;
- (c) a protein consisting of a portion of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 203081, wherein said portion comprises at least 30 contiguous amino acid residues of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 203081; and
- (d) a protein consisting of a portion of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 203081, wherein said portion comprises at least 50 contiguous amino acid residues of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 203081.

70. (New) The antibody or fragment thereof of claim 69 that specifically binds protein (a).

71. (New) The antibody or fragment thereof of claim 69 that specifically binds protein (b).

72. (New) The antibody or fragment thereof of claim 69 that specifically binds protein (c).

73. (New) The antibody or fragment thereof of claim 69 that specifically binds protein (d).

74. (New) The antibody or fragment thereof of claim 70 that specifically binds protein (b).

75. (New) The antibody or fragment thereof of claim 71 wherein said protein bound by said antibody or fragment thereof is glycosylated.

76. (New) The antibody or fragment thereof of claim 71 which is a human antibody.

77. (New) The antibody or fragment thereof of claim 71 which is a polyclonal antibody.

78. (New) The antibody or fragment thereof of claim 71 which is selected from the group consisting of:

- (a) a chimeric antibody;
- (b) a humanized antibody;
- (c) a single chain antibody; and
- (d) a Fab fragment.

79. (New) The antibody or fragment thereof of claim 71 which is labeled.

80. (New) The antibody or fragment thereof of claim 79 wherein the label is selected from the group consisting of:

- (a) an enzyme;
- (b) a fluorescent label;
- (c) a luminescent label; and
- (d) a bioluminescent label.

81. (New) The antibody or fragment thereof of claim 71 wherein said antibody or fragment thereof specifically binds to said protein in a Western blot.

82. (New) The antibody or fragment thereof of claim 71 wherein said antibody or fragment thereof specifically binds to said protein in an ELISA.

83. (New) An isolated cell that produces the antibody or fragment thereof of claim 71.

84. (New) A hybridoma that produces the antibody or fragment thereof of claim 71.

85. (New) A method of detecting HUVDJ43 protein in a biological sample comprising:

- (a) contacting the biological sample with the antibody or fragment thereof of claim 71; and
- (b) detecting the HUVDJ43 protein in the biological sample.

86. (New) The method of claim 85 wherein the antibody or fragment thereof is a polyclonal antibody.

87. (New) An isolated antibody or fragment thereof obtained from an animal that has been immunized with a protein selected from the group consisting of:

- (a) a protein comprising the amino acid sequence of the full-length polypeptide encoded by the cDNA contained in ATCC Deposit Number 203081;
- (b) a protein comprising the amino acid sequence of the mature form of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 203081;
- (c) a protein comprising the amino acid sequence of at least 30 contiguous amino acid residues of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 203081; and
- (d) a protein comprising the amino acid sequence of at least 50 contiguous amino acid residues the polypeptide encoded by the cDNA contained in ATCC Deposit Number 203081;

wherein said antibody or fragment thereof specifically binds to said amino acid sequence.

88. (New) The antibody or fragment thereof of claim 87 obtained from an animal immunized with protein (a).

89. (New) The antibody or fragment thereof of claim 87 obtained from an animal immunized with protein (b).

90. (New) The antibody or fragment thereof of claim 87 obtained from an animal immunized with protein (c).

91. (New) The antibody or fragment thereof of claim 87 obtained from an animal immunized with protein (d).

92. (New) The antibody or fragment thereof of claim 87 obtained from an animal immunized with protein (e).

93. (New) The antibody or fragment thereof of claim 87 which is a monoclonal antibody.

94. (New) The antibody or fragment thereof of claim 87 which is selected from the group consisting of:

- (a) a chimeric antibody;
- (b) a polyclonal antibody;
- (c) a humanized antibody;
- (d) a single chain antibody; and
- (e) a Fab fragment.

95. (New) An isolated monoclonal antibody or fragment thereof that specifically binds to a protein selected from the group consisting of:

- (a) a protein consisting of the full-length polypeptide encoded by the cDNA contained in ATCC Deposit Number 203081;

(b) a protein consisting of the mature form of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 203081;

(c) a protein consisting of a portion of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 203081, wherein said portion comprises at least 30 contiguous amino acid residues of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 203081; and

(d) a protein consisting of a portion of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 203081, wherein said portion comprises at least 50 contiguous amino acid residues of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 203081.

96. (New) The antibody or fragment thereof of claim 95 that specifically binds protein (a).

97. (New) The antibody or fragment thereof of claim 95 that specifically binds protein (b).

98. (New) The antibody or fragment thereof of claim 95 that specifically binds protein (c).

99. (New) The antibody or fragment thereof of claim 95 that specifically binds protein (d).

100. (New) The antibody or fragment thereof of claim 95 that specifically binds protein (e).

101. (New) The antibody or fragment thereof of claim 95 that specifically binds protein (b).

102. (New) The antibody or fragment thereof of claim 97 wherein said protein bound by said antibody or fragment thereof is glycosylated.

103. (New) The antibody or fragment thereof of claim 97 which is a human antibody.

104. (New) The antibody or fragment thereof of claim 97 which is selected from the group consisting of:

- (a) a chimeric antibody;
- (b) a humanized antibody;
- (c) a single chain antibody; and
- (d) a Fab fragment.

105. (New) The antibody or fragment thereof of claim 97 which is labeled.

106. (New) The antibody or fragment thereof of claim 105 wherein the label is selected from the group consisting of:

- (a) an enzyme;
- (b) a fluorescent label;
- (c) a luminescent label; and
- (d) a bioluminescent label.

107. (New) The antibody or fragment thereof of claim 97 wherein said antibody or fragment thereof specifically binds to said protein in a Western blot.

108. (New) The antibody or fragment thereof of claim 97 wherein said antibody or fragment thereof specifically binds to said protein in an ELISA.

109. (New) An isolated cell that produces the antibody or fragment thereof of claim 97.

110. (New) A hybridoma that produces the antibody or fragment thereof of claim 97.

111. (New) A method of detecting HUVDJ43 protein in a biological sample comprising:

- (a) contacting the biological sample with the antibody or fragment thereof of claim 97; and
- (b) detecting the HUVDJ43 protein in the biological sample.

112. (New) An isolated antibody or fragment thereof that specifically binds a HUVDJ43 protein purified from a cell culture wherein said HUVDJ43 protein is encoded by a polynucleotide encoding amino acids 1 to 182 of SEQ ID NO:2 operably associated with a regulatory sequence that controls the expression of said polynucleotide.

113. (New) The antibody or fragment thereof of claim 112 which is a monoclonal antibody.

114. (New) The antibody or fragment thereof of claim 112 which is a human antibody.

115. (New) The antibody or fragment thereof of claim 112 which is selected from the group consisting of:

- (a) a chimeric antibody;
- (b) a polyclonal antibody;
- (c) a humanized antibody;
- (d) a single chain antibody; and
- (e) a Fab fragment.

116. (New) The antibody or fragment thereof of claim 112 wherein said antibody or fragment thereof specifically binds to said protein in a Western blot.

117. (New) The antibody or fragment thereof of claim 112 wherein said antibody or fragment thereof specifically binds to said protein in an ELISA.